INDUSTRY PROFILES

Mining and Oil and Gas Extraction Industry

July 2011

Government of Alberta
Employment and Immigration

Overview:

The Mining and Oil and Gas Extraction industry[1] in Alberta includes companies involved in activities such as:

- exploring for crude petroleum and natural gas;
- drilling, completing and equipping wells;
- operating separators, emulsion breakers, desilting equipment and field gathering lines for crude petroleum;
- mining for coal, metal ore, and non metallic mineral mining and quarrying; and
- other activities in the preparation of oil and gas up to the point of shipment from the producing property.

Section A: Business Environment
1. 2010 Employment and Unemployment Numbers and Rates
2. Industry Growth
3. Size of Businesses in Alberta and the Industry
Section B: Human Resources Profile
1. Occupational Information
2. Demographics: Age and Gender
3. Wages
Section C: Additional Information
Links to Selected Industry Associations

[1] North American Industry Classification System (NAICS) groups 211, 212, 213

Section A: Business Environment

1. 2010 Employment and Unemployment Numbers and Rates:

	Alberta	Mining and Oil and Gas Extraction Industry
Number of employed	2,016,600	140,200
Percent employed in the industry		7.0%
Number of unemployed	140,700	5,900
Unemployment rate	6.5%	4.0%

Data Source: Labour Force Historical Review 2010, Statistics Canada

For more information on employment numbers or for a historical comparison, please go to the Labour Force Statistics[2] or Statistics Canada[3] websites.

2. Industry Growth:

- Employment in the Mining and Oil and Gas Extraction industry is expected to grow on average 1.4% annually from 2010 to 2013.

For more information, see the *Alberta Modified Canadian Occupational Projection System (COPS) Outlook 2009 – 2013, Industry Employment Outlook*[4] online and the Alberta Learning Information Service (ALIS)[5] website's industry descriptions.

[2] See http://www.employment.alberta.ca/BI/67.html
[3] See http://www.statcan.gc.ca
[4] See http://www.employment.alberta.ca/documents/LMI/LMI-LMF_2009-13_cops.pdf
[5] See http://www.alis.alberta.ca

Trends and Outlook

According to Statistics Canada's National Economic Accounts, the Mining and Oil and Gas Extraction industry accounted for 19.1% of Alberta's Gross Domestic Product in 2010, down from 24.3% in 2000. The industry's share of total employment increased from 4.8% in 2000 to 7.0% in 2010.

Employment in 2010 was 1.0% higher than its level in 2009. Over the last ten years, employment has increased from 76,500 people in 2000 to 140,200 people in 2010.

According to *Alberta Occupational Demand Outlook 2011-2015*, employment growth in the following occupations is expected to be less than 2.7%, the average for all occupations: Supervisors; Underground miners; Oil and gas drillers and related workers; Mine service workers and operators in oil and gas drilling; and Labourers in primary production.

3. Size of Businesses in Alberta and the Industry:

Establishment Size	Alberta Businesses		Forestry, Fishing, Mining and Oil and Gas Extraction** Businesses	
	Number of Employees	%*	Number of Employees	%*
Less than 20 employees	605,200	36.2%	29,600	22.9%
20 to 99 employees	565,800	33.8%	38,300	29.6%
100 to 500 employees	309,300	18.5%	26,600	20.6%
Over 500 employees	193,200	11.5%	34,700	26.9%

Data Source: Labour Force Historical Review 2010, Statistics Canada

* Percentages may not add up to 100 due to rounding.

**Numbers and percentages refer to Fishing, Mining and Oil and Gas Extraction, and Forestry and Logging with Support Activities. These are grouped together for establishment size.

Note: Statistics Canada's survey methodology for determining establishment size differs from the one it uses in the Labour Force Survey to determine total employment. As a result, the total number of employees by establishment size will not be the same as total employment in the combined industry.

Section B: Human Resources Profile

1. Occupational Information:

Some examples of occupations in the Mining and Oil and Gas Extraction industry include:

- mining engineer;
- blaster;
- drilling and service rig manager;
- petroleum engineer; and
- drilling rig leasehand/floorhand.

For a complete listing of all occupations related to this industry as well as detailed information on education and skill requirements, visit the Alberta Occupational Profiles[6] website.

2. Demographics: Age and Gender:

According to the Labour Force Survey, the gender breakdown in the Mining and Oil and Gas Extraction industry is as follows:

- women employed: 29,300 people, or 20.9%
- men employed: 110,900 people, or 79.1%

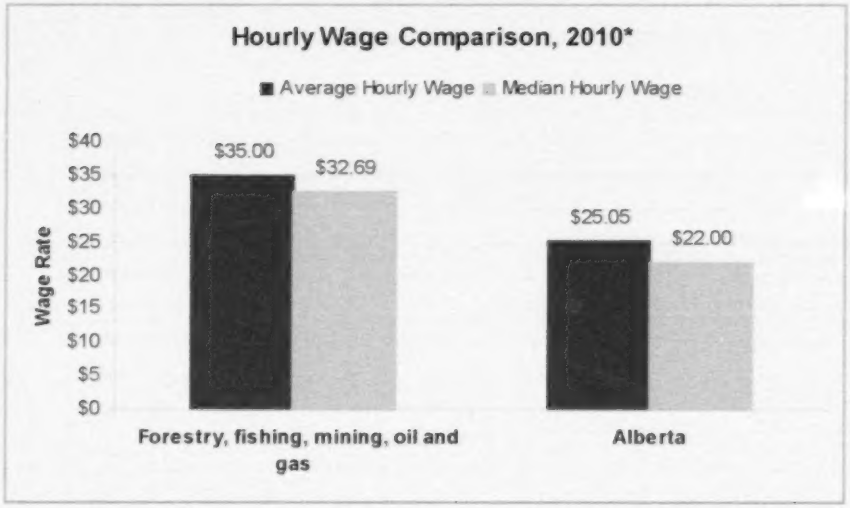
In Alberta, women accounted for 45.1% and men made up 54.9% of total employment.

Age Characteristics	Alberta Employees		Mining and Oil and Gas Extraction Employees	
	Number	%	Number	%
15-24 years	314,500	15.6%	13,000	9.3%
25-54 years	1,381,500	68.5%	112,800	80.4%
55 years and over	320,600	15.9%	14,400	10.3%

Data Source: Labour Force Historical Review 2010, Statistics Canada

[6] See http://www.alis.alberta.ca/occinfo

3. Wages:



Data Source: Labour Force Historical Review 2010, Statistics Canada
*Wages pertain to Mining and Oil and Gas Extraction, Fishing, and Forestry and Logging with Support Activities, which are grouped together for sample size reasons.
Note: The average hourly wage is obtained by dividing the sum of the wages of all the employees by the total number of employees. The median hourly wage is that wage below which half the employees earn and above which half the employees earn.

Wage and Salary Information for Selected Occupations

Occupation	Average Hourly Wage			Average Annual Salary
	Starting Average	Overall Average	Top Average	
Petroleum engineer	$ 39.39	$ 60.74	$ 105.40	$ 124,686
Petroleum, gas and chemical process operator	$ 34.15	$ 34.80	$ 36.91	$ 72,325
Truck driver (oil and gas extraction)	$ 22.93	$ 26.86	$ 30.28	$ 64,128

Data Source: 2009 Alberta Wage and Salary Survey

For more information on wages, refer to the WAGEinfo[7] webpage. For job descriptions, duties, required skills and education for specific occupations in the Mining and Oil and Gas Extraction industry, visit the ALIS[8] website.

[7] See http://www.alis.alberta.ca/wageinfo
[8] See http://www.alis.alberta.ca

Section C: Additional Information

Links to Selected Industry Associations:

- Canadian Association of Oilwell Drilling Contractors (http://www.caodc.ca)
- Canadian Association of Petroleum Producers (http://www.capp.ca)
- Canadian Institute of Mining, Metallurgy and Petroleum (http://www.cim.org)
- Coal Association of Canada (http://www.coal.ca)
- Petroleum Human Resources Council of Canada (http://www.petrohrsc.ca)
- Petroleum Services Association of Canada (http://www.psac.ca)
- Petroleum Technology Alliance Canada (http://www.ptac.org)